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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,431	07/02/2003	Paul Brantner	48469-00005	1436
23767	7590	01/19/2005		
PRESTON GATES ELLIS & ROUVELAS MEEDS LLP 1735 NEW YORK AVENUE, NW, SUITE 500 WASHINGTON, DC 20006				
			EXAMINER BUDD, MARK OSBORNE	
			ART UNIT 2834	PAPER NUMBER

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

**Office Action Summary****Application No.**

10/611,431

**Applicant(s)**

BRANTNER ET AL.

**Examiner**

Mark Budd

**Art Unit**

2834

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 5,6,28 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-27 and 30-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radziemski in view of Oberlin.

Radziemsky (figs. 5-7) teaches multiple piezoelectric elements subjected to a common force (#210) to generate an electrical output. Each piezo element has its own rectification circuit and its own capacitor. A blocking diode #378 is provided at the output to protect the device from reverse voltages.

It is not explicitly clear whether the piezoelectric elements (#205) are configured in a stacked or multi-layered configuration although it is explicitly taught that they are subject to the same force. Oberlin (see abstract) does explicitly advocate the use of multiple (stacked) layers of piezoelectric material for use in a generator to increase capacitance and reduce energy loss during energy transition. Thus for at least this reason it would have been obvious to one of ordinary skill in the art to provide Radziemsky with stacked piezo elements. Regarding claim 2, note #380 (fig. 5, Radziemsky). Regarding claim 7, see Radziemsky (abstract). Regarding claims 8-22, the phraseology "wherein said apparatus is optimized for ---" is merely stating a desired result or function without any commiserate structure to perform the function. As such, this language has not been given patentable weight.

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Claims 5, 6, 28 and 29 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The drawings are objected to for not showing the subject matter of claims 5, 6, 28 or 29. Correction is required.

Further cited of interest are Kimura, Tgakahashi, Hawkins (figs. 5 and 6), Triplett, Focht, Kolm and Carroll.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark O. Budd whose telephone number is (571)272-2019. The examiner can normally be reached on Monday-Thursday from 6am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez, can be reached on \*\*\*. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Budd/ds

  
PRIMARY EXAMINER  
ART UNIT 2834